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AUTHOR Friend, Ronn E.
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ABSTRACT

This report is a review of findings and recommendations following a study by the Migrant Student Record Transfer System (MSRTS) Committee of the National Association of State Directors of Migrant Education (NASDME). The assessment of NASDME's Skills Information System (SIS) was initiated in September 1984 and completed in December 1985. Section 1 of the report gives historical background of SIS, which is designed to distribute information in four categories--reading, mathematics, early childhood and oral language--to teachers of migrant children throughout the country. Section 2 provides details about data sources, surveys, and information collection. Section 3 includes information on the four SIS committees and various sub-committees working on the project, their responsibilities and general recommendations for altering SIS's manuals and publications. Appendix A of the report offers the "MSRTS Skills Information Survey" and a tally of the survey responses. Appendix B shows proposed revisions of the "Reading Skills" checklist for evaluating migrant students' skills. Appendix C shows proposed revisions of the "Math Skills" checklist. Appendix D shows proposed changes in the "Oral Language Skills" checklist. Several charts are included in the document. (TES)

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SKILLS INFORMATION SYSTEM REVIEW:

A REPORT OF FINDINGS AND RECOMMENDATIONS

Prepared by

Ronn E. Friend, Chair
National MSRTS Committee

December 3, 1985

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FOREWORD

The Migrant Education Program has been a leader in the use of technology in education through the years. It has nurtured a sophisticated information network -- the Migrant Student Record Transfer System (MSRTS). A very advanced Skills Information System (SIS) for math, reading, early childhood, and oral language skills became an integral part of MSRTS in 1979. In the ensuing years many states have implemented the use of the SIS but not until now has there been an opportunity to examine the diversity of its use and the utility of its intended purposes.

This report presents the findings and recommendations of a study conducted by the Migrant Student Record Transfer Committee of the National Association of State Directors of Migrant Education (NASDME). The SIS REVIEW was initiated in September 1984 and completed in December 1985. The report was produced with the support and assistance of many users of the SIS, the NASDME Executive Committee, and members of other NASDME Committees.

Credit must first be given to the SIS Subcommittee of the MSRTS Committee.

Chair, Jane Hunt, Arizona
Chris Berry, California
Joe Resendez, Washington
Jan Burlison, Indiana
David DiSoto, Wisconsin

Mrs. Hunt and her committee provided creative leadership to each phase of the Review Process. Although each committee member had a "full-time" job within his or her own state, each was willing to spend many additional hours doing committee work outside the scheduled MSRTS Committee meetings and subcommittee meetings. Given the nature of the Review, the committee is to be commended on the excellent manner in which they defined and accomplished their tasks.

The assistance of the staff at the Migrant Student Record Transfer System also must be acknowledge. Certain data for Section II of the report were drawn from the MSRTS data base. Troy Rinker and Rick Johnson of MSRTS contributed to the SIS Review by frequently supplying information and data.

Five state agencies provided special support to the project. California provided key punching services for the user survey and donated staff time and support. Arizona, Indiana, New York and Texas each hosted one the SIS working committees.

The report is in four sections:

Section I: Historical Background	Pages 3-5
Section II: Size and Scope of SIS Review	Pages 6-13
Section III: The SIS Working Committees	Pages 14-23

The findings from each phase of the study are delineated in Sections II and III. Section III details specific recommendations gleaned from a comprehensive review of the various data sources by the SIS Working Committees.

SECTION I

HISTORICAL BACKGROUND

> "... each Skills List is really no more than a handy reference guide or catalog or directory containing the names and numbers of the most commonly used skills, just as the yellow pages contain the most currently used services in any town or city wherever one might move."
>
> TRACKING A CHILD'S MIND
> Orientation Narration Script

To more effectively assure the continuity of each migrant child's educational program, the National Migrant Educaiton Program created a transmittal system for communicating skills information in reading, mathematics, early childhood, and oral language to teachers of migrant children throughout the nation. This tracking system, which became known as the Skills Information System (SIS), was developed in cooperation with the Migrant Branch of the U.S. Office of Education, the National Association of State Directors of Migrant Education, the Migrant Student Record Transfer System, and four national committees. The SIS was initiated in 1979 through a series of national and regional training activities to insure a gradual and comprehensive implementation of the system by all states.

The SIS is an integral part of the Migrant Student Record Transfer System and its users. The four skills lists, whose content was developed by hundreds of educators across the United States, enable teachers to report information on the particular skills a migrant child may have mastered or worked on in a specific area. The reported skills become part of each

student's record on the MSRTS and are thereby available to teachers, aides, and tutors serving migrant students. The purpose of the SIS was to identify and organize the "vital learning signs" in reading, math, early childhood, and oral language that could give teachers anywhere in the country a way to bring migrant children into their curriculum. The skills lists were not intended to represent a curriculum or an implied learning sequence.

As the SIS became integrated into the MSRTS and implemented by the states, NASDME placed emphasis on the full use of the system. In mid-December 1981, the NASDME Evaluation Committee conducted a mail survey to determine the SIS information needs among all state directors of Migrant Education. Results of the survey were used to guide the MSRTS in the development of SIS management reports. Two of the needs indicated by the state directors were skill information relative to interstate migrant students and information from the most recently attended school.

The 1981 initiative attempted to access only the status of SIS information needs among state directors; it was not intended as a comprehensive review of the system. In 1983, the NASDME Executive Committee requested the Evaluation Committee to develop a MSRTS utilization questionnaire to be sent to a sample of users in each state. Questions pertaining to the use and utility of the SIS were included in the design. Shortly before the survey forms were to have been distributed, the NASDME Executive Committee placed the activity on hold.

In the meantime, documentation, particularly in the math skills, had been steadily increasing to point out discrepancies between the "what is" and "what should be" respective to the content of the skills lists and their

compatibility with current terminology and curricula practices. In April 1984, the MSRTS Committee recommended to the NASDME Executive Committee that a task force within or under the direction of the MSRTS Committee be assigned to review the SIS and to determine a need for revision to the system.

As a result of this recommendation and the previous attempts to review the SIS, the incoming NASDME Executive Committee charged in May 1984 the MSRTS Committee to study the skills tracking system and to make appropriate recommendations for improving its use and content wherever neccesary. In order to meet the responsibilities of the charge, the chair of the MSRTS Committee appointed in September 1984 a subcommittee to move the study forward. Specifically, the MSRTS Committee chair requested the subcommittee to:

1. Determine the adequacy, content and readability of the four skills lists;
2. Determine the use and utility of the skills information reported on the student record;
3. Determine the extent states have implemented the SIS;
4. Determine the data sources from which to gather information about the SIS; and,
5. Establish a timeline for completing the study.

The subcommittee developed a 15 month plan to collect pertinent information about the SIS and to compile its findings and recommendations into a report to the NASDME Executive Committee by December 1985. The study was divided into different phases with each phase targeting a specific task. The information resulting from each phase was used to draw conclusions and formulate appropriate recommendations regarding the SIS.

SECTION II

SIZE AND SCOPE OF THE SIS REVIEW

A primary concern for the subcommittee was determining a process to gather information about the system. It became clear from the beginning that the SIS Review needed to be as broad based and comprehensive as possible and information needed to be gathered from as wide a user base as possible. Moreover, the process for gathering and reviewing SIS information needed to be a collaborative effort among the MSRTS Committee, the MSRTS data base, the NASDME Executive Committee, the State Directors of Migrant Education, the NASDME Evaluation Committee, and the many users of the system across the nation.

Four data collection sources were identified and used to gather SIS information. These sources were:

- MSRTS Data Base
- User Survey
- National Input Forum
- Written Comments, Studies and Recommendations

The scope and purpose for each data source are delineated in Table 1.

The challenge for the subcommittee was organizing a way to review the information respective to each data source to determine a need to revise a particular skills area or the system. To assure a comprehensive review of the findings by users and those knowledgeable of the SIS, four working committees were created, one in Reading, one in Math, one in Oral Language, and one in Early Childhood. The creation of and input by the working

TABLE 1

SIS Review Data Collection

Data collection source	Population on whom data are to be collected	Purpose for collecting data
1. MSRTS Data Base (January - March 1985)	State	a. Determine the types and number of skills being reported for students. b. Determine the types and number of skills not being reported for students. c. Determine the extent states have implemented the SIS.
2. User Survey (April - May 1985)	Instructional staff (teachers, aides, and curriculum specialists)	a. Determine the adequacy, content and readability of the four skills lists. b. Determine the use of the skills information reported on the student record.
3. "National Input Forum" at the National Migrant Education Conference in Atlanta, Georgia (May 1985)	Instructional staff, data entry specialists, record clerks	a. Elicit information about the adequacy, content and readability of the four skills lists. b. Elicit information about the use of the skills information reported on the student record. c. Elicit alternative proposals for modifying SIS content and readability.
4. Written Comments, Studies and Recommendations	State directors, administrators, curriculum specialists, 143 project directors	a. Report on the results of any state-specific or local specific study of the SIS (e.g., usage, training needs, implementation) conducted since 1983. b. Report on skill studies that have been conducted by 143 projects and ones that have focused on the needs of handicapped, secondary, or LEP students.

committees reflected the need for integrity in adhering to the process by which the skills lists were initially developed and the intent of the charge by the NASDME Executive Committee. Bringing together a cadre of teachers and skill specialists to study information gleaned from the data sources allowed for a wider user audience beyond the MSRTS Committee and one that had more "hands-on" or "grass-roots" experience with the SIS. The structure and outcome of the working committees are discussed in Section III.

Data Sources

As previously noted, four data sources were used to gather information about the use and utility of the Skills Information System. This section of the report presents an overview of each data source and highlights the key information drawn from each.

1. *MSRTS Data Base*

The most appropriate and complete source of SIS infomration is the MSRTS data bank in Little Rock, Arkansas. Three types of information were drawn from the data base: (1) number of students for whom skills have been reported, (2) frequency of skills reported by grade level, and (3) type and level of skills less frequently reported.

From the inception of the SIS in 1979, there has been an annual increase in the number of students having skills reported on their MSRTS record. Table 3 provides information about the distribution of skill areas reported by student count between 1979 and 1983.

TABLE 3
SIS Distribution by Student Count
1979 - 1983*

Year	Skill Area			
	Math	Reading	Oral Language	Early Childhood
1979	56,377	77,623	N/A**	7,423
1980	77,882	97,882	18,898	13,666
1981	118,564	125,121	48,237	13,900
1982	135,702	151,745	66,242	14,078
1983	129,697	138,804	69,385	13,058

* Source: 1/23/85 SIS Data Run, MSRTS, Little Rock, Arkansas
** Oral Language Skills were reported first in 1980

Although there has been an annual increase in the number of students on whom skills have been reported, the number of skills reported declines as grade level increases. The MSRTS data showed that between 1979 and 1983 the highest number of math, reading and oral language skills were reported on students in grade one, and the highest number of early childhood skills on P_4 students. The data reflected a dramatic drop in skills being reported as students enter high school. This finding is strongly related to the FTE Profile which shows the highest number and percentage of eligible migrant students enrolled at the kindergarten and grade one levels and the lowest numbers enrolled at the secondary levels.

The relationship between the frequency of skills reported by grade and the FTE Profile appears to indicate that certain type and level of skills are less frequently reported for intermediate and upper grade students not because they are less adequate or inappropriate, but because there are less students enrolled at these levels on whom to report skills. However, there is a need for further analysis to ascertain why certain skills are less frequently reported.

2. *User Survey*

The primary source of data for the SIS Review was a survey developed by the subcommittee in consultation with the NASDME Executive Committee and the chair of the NASDME Evaluation Committee. The survey instrument included 22 questions that spanned 3 major areas: (1) user information, (2) SIS utilization, and (3) specific skills list. Also, the instrument included a comment section.

The survey was designed to encourage a high response rate. The respondent, upon completing the form, needed only fold, staple and mail. Postage costs were pre-paid by the California State Department of Education. In addition, California provided key-punching services and maintained all survey data on a master tape. At the completion of the survey period, the master tape was mailed to the Little Rock MSRTS Data Base for tabulation. Written comments respective to each skill area were mailed to MSRTS Committee members for compilation and summation.

Surveys were distributed to state directors of Migrant Education during the week of April 15, 1985. The state directors were asked to randomly disseminate the surveys to migrant and non-migrant paid instructional personnel who were familiar with the MSRTS educational record and the skills information.

The number of surveys distributed to each state was determined by clustering states into ranges based on the 1984 FTE national totals. Five FTE ranges were selected to cluster states; each state received a pre-determined number of surveys equal to other states in their

cluster, with a minimum of 25 and a maximum of 200 surveys assigned to a state.

As indicated in Table 2, 2,725 surveys were allocated to the 49 states, Puerto Rico, and the District of Columbia. However, only 2,475 surveys were actually distributed. Puerto Rico, the District of Columbia, Alaska, Rhode Island, Vermont, South Dakota, New Hampshire, and Tennessee, although included in the allocation count, opted not to participate in the survey.[1] Therefore, no surveys were distributed to their programs.

TABLE 2
Survey Distribution and Return by Cluster

1984 FTE Range	Number of States Per Range	Number of Surveys Per States Based on Range	Total Surveys		
			Allocated	Distributed	Returned
65 - 1288	21	25	525	350	157
1816 - 3538	12	50	600	450	237
4552 - 7588	12	75	900	825	453
9872 - 13333	3	100	300	300	176
35259	1	150	150	150	110
98959 - 106833	2	200	400	400	195
			2,725	2,475	1,328

Out of the 2,475 surveys distributed, 1,328 were returned, reflecting a 54 percent response rate. A copy of the survey instrument and a tally of responses for each data item are attached as Appendix A.

[1]Alaska, Rhode Island, Vermont, South Dakota, and the District of Columbia indicated they were not using the SIS; New Hampshire indicated that the smallness of its program precluded its participation; and Puerto Rico indicated a hesistency in distributing a form in English.

Of those responding to the survey, it appears that the SIS is perceived very positively by users. The survey respondents stated that:

- Most (84%) are always or often reporting skills
- The majority (64%) receive the MSRTS record on newly enrolling students
- About half (57%) of the records contain skills information
- Some (39%) receive the MSRTS record within a week of the students arrival
- Some (37%) use the information to place students in instructional activities
- About one-third (34%) of the skills listed are from a school other than their own.

A significant finding is that the SIS is not being used widely as originally designed to place students in instructional activities. It is used more generally to:

- Confirm teacher judgement (74%)
- Report achievement (68%)
- Correlate with curricula (65%)
- Prepare special lessons (60%)
- Group for instruction (53%)
- Work with parents (35%).

There appears to be a high correlation between the size of a state's program and the use of the SIS for student placement. Less use of the SIS for student placement was noted for larger programs than for states with smaller FTEs. No other factor surveyed appeared to influence utilization.

3. *National Input Forum*

On May 2, 1985, the subcommittee conducted a discussion forum at the National Migrant Child Conference in Atlanta. The purpose of the forum was to elicit information about the use and utility of the SIS and the four skills lists. Participants were encouraged to share information about any state or local initiatives to study the effectiveness of the SIS and to identify ways to improve the system.

The 75 participants were divided into four discussion groups, each of which focused on one of the skills list. Each discussion session was recorded and transcripts were made available to the SIS Working Committees.

Generally, the participants viewed the SIS as an important process. Criticism and suggested improvements were aimed at:

- The unparallel structure of the four skills lists
- The incompleteness of the oral language and math skills lists
- The timing of the SIS information as a resource to place students
- The limited use of the SIS information by non-migrant funded classroom teachers
- The construct of the skills lists which is aimed at the lower grades and, thereby, results in limited use by upper grade teachers.

4. *Written Comments, Studies or Recommendations*

State directors were invited to submit to the subcommittee specific comments or recommendations regarding any aspect of the SIS. Only two states, Arizona and Washington, had conducted studies to ascertain the use and effectiveness of the system in their states. The findings from these studies were shared with the SIS Working Committees. Additionally, written comments and materials were received from Oklahoma, Texas and Alabama.

The findings from the Arizona and Washington studies and the written comments received from the other states "echoed" many of the conclusions derived from the User Survey and the Atlanta Input Forum. Specifically, the unparallel structure of the skills lists and the incompleteness of the math skills appeared to be the overriding concerns.

SECTION III

THE SIS WORKING COMMITTEES

In order to meet the responsibilities of the charge and to assure a broad based review of the findings by users of the Skills Information System, four working committees were established to study the information resulting from each data source. States were invited to send, at their expense, representatives to participate in working sessions assigned to each skill area. A total of 38 master teachers and skill specialists representing 20 states formed the working committees. Additionally, four states volunteered tc host a working committee and to be responsible for providing a moderator and secretarial support to the committee. The SIS subcommittee established the agenda and time-on-task activities for each working session. Table 4 provides additional information about the size and scope of each working committee.

The four working committees used the information from each phase of the SIS Review to draw conclusions and formulate appropriate recommendations about the use and utility of the system. Specifically, each working group was charged with the following responsibilities:

1. Determining and clarifying the basic trends or elements common to each data source --

   - The MSRTS data base reports on the frequency of skills reported,
   - Skills statements appearing on the MSRTS educational records,
   - The national SIS User Survey including respondent comments and recommendations,
   - Transcripts and materials from the Atlanta Input Forum, and
   - Written comments and documentation submitted by various states;

TABLE 4
Size and Scope of
SIS Working Committees

Working Committee	Host State	Date and Site of Session	MSRTS Committee Liaison	Moderator	Participants
READING	New York	8/12-16/85 Syracuse	Carol Gilchrist Pat Sherman (CAPRE Resource)	Debra Knapp	Virginia Brantley, Alabama; Diane Carr, Florida; Anita Damlano, California; Vida Galpin, Arizona; Anita Guerrero, Louisiana; Nancy Livingston, Utah; Joan Marshall, Georgia; Connie Rupel, Indiana
ORAL LANGUAGE	Arizona	8/13-16/85 Phoenix	Jane Hunt	Barbara Volk	Margie Burkart, Louisiana; Silvia Butiste, Indiana; Irene Frklich, Arizona; Gretchen Garza, Illinois; Rebecca Heelan, Minnesota; Maddie Isaminger, Louisiana; Dorothy Martinez, Washington; Michelle Orrell, Oklahoma; Marcella Sandoval, New Mexico; Cvieta Sheridan, Maryland
MATH	Texas	10/7-11/85 Edinburg	Jane Hunt Ignacio Resendez	Hector Perez	Gloria Hetherington, Oklahoma; Carol Johnson, Minnesota; Gabriel Limon, California; Charles Mann, Alabama; James Rigney, Washington; Dorothy Rubio, Arizona; Cecilia Santa Ana, Michigan; Linda Winkleman, Indiana
EARLY CHILDHOOD	Indiana	10/8-11/85 Indianapolis	Jan Burlison	Gwen Baker	Cecilia Gutierrez, Texas; Olga Larimer, Indiana; Carmen Mains, Illinois; Martha Martin, Arkansas; Ruby McBrayer, Oklahoma; Zan Payne, Idaho; Lupe Perez, Washington; Sharon Smith, Massachusetts

2. Studying the data trends to determine a need for revising the SIS or any of its components respective to --

   - ° Compatibility of skills lists with current curricula and educational practices,
   - ° Clarity of skills statements appearing on the MSRTS educational record, and
   - ° Use of the skills in a timely and complete manner.

The final instruction to the working committees was to develop specific recommendations for implementing any revisions having a positive effect on the timely and complete use of the system.

General Recommendations

Specific recommendations relative to each skills area are contained in the working committees' reports. The common elements that emerged from these recommendations were:

1. A need for uniform training on the format, content and use of the SIS;

2. A need for each state to review how it manages the flow and timely delivery of SIS information for its "intended" use by the classroom teacher;

3. A need to develop uniform checklists for reporting skills that reflect a common organizational structure for reading, math and oral language;

4. A need to modify the printing of the educational record in order for

   - ° the printing of skills information to occur at the same level that it has been reported,
   - ° the date of reporting to be indicated, and
   - ° the default to be changed to show all skills reported under the last enrollment; and

5. A need to revise skills lists in Reading, Math and Oral Language.

In summary, the general recommendations of the working committees were intended to assure consistency in reporting, to convey the appropriate and maximum use of the system, and to encourage states to review how they manage the flow and delivery of skills information. Three of the

four working committees concluded that skills lists in Reading, Math, and Oral Language need revision.

Summary of SIS Subcommittees' Reports

Each working committee developed a report of its findings and recommendations and submitted these to the chair of the SIS subcommittee. Each committee was encouraged to develop its own format in which to report. Therefore, the summaries that follow parallel the format by which each group chose to compile its findings. Specific revisions for each skills list as recommended by the working committees are detailed in the following appendices:

- Appendix B (Blue) - Reading
- Appendix C (Green) - Math
- Appendix D (Yellow) - Oral Language

1. *READING*

Concerns expressed in surveys/forum/ committee:	Working committee recommends that:
1. Skills list is too detailed and cumbersome for teacher to use.	1. Skills list as revised be adopted (approx. 326 subtopics/skills reduced to 146).
2. Instructional level is not specific enough.	2. Instructional level allow reporting of 20 rather than 13 levels.
3. There is no information about what reading series the child was using at the previous school.	3. Publisher/series be printed on educational record.
4. Teachers want to know if a child can read in a language other than English.	4. Other reading language be printed on the record even when no specific skills are reported in that language.
5. Writing skills are needed.	5. Writing skills be developed and incorporated with reading and oral language skills to give a more complete language arts package.

Concerns expressed in surveys/forum/ committee:	Working committee recommends that:
6. It would be useful for a receiving teacher to know the date skills were reported.	6. Date of reporting be printed in reading skills section of record.
7. Readiness skills section needs to be revised to more accurately reflect what skills are being taught.	7. (see suggested revision, Appendix B)
8. Survival reading skills are needed.	8. (see suggested "Survival Skills" section, Appendix B)
9. Literature skills are needed.	9. (see suggested "Literature" section, Appendix B)
10. The skills list does not allow those who are using language experience and other non-basal approaches to give this information to the next teacher.	10. Language experience and other non-basal approaches be acceptable entries on the publisher/series information line.
11. Skills books are cumbersome and therefore are not used by states.	11. Checklists rather than booklets be printed and disseminated nationally.
12. Many users are unaware of the range of options in reporting skills because states use different versions of the skills lists.	12. All states use the nationally adopted skills list.
13. There is need for a national training package, because of extensive revisions and changing personnel and to ensure consistency among states.	13. A brief videotape for training be developed to be available to all state programs.

NOTE: Reading in Spanish was not addressed in these recommendations. However, consideration may need tc be given to making the Spanish version parallel to any revised English version.

2. MATHEMATICS

- We recommend the log sheet developed by the SIS Math Working Committee, October, 1985, be implemented and further recommend that a single math skills manual be developed corresponding to the log sheet for this revised list.

- We recommend that the complete, exact, wording of the revised math skills list be printed on the MSRTS educational record.

- We recommend that only those math skills which are specifically reported be printed, following the format of the reading skills program.

- We recommend that the skills the encoding school sends to the computer be printed and that the default option be changed so that all skills from the last reporting school be printed, rather than just the last three skills.

- We recommend that an area be provided on the MSRTS educational record for specific comments on skills reported, which can be accessed by entering the specific skill code (numbers) and limited to those of the reporting school.

- We recommend that the date teachers report skills under study be printed on the MSRTS educational record.

- We recommend that prior to final printing and publication, this committee be reconvened for the purpose of reviewing and revising the national MSRTS skills manual and the student record print as implemented from the recommended specifications, and to proof-read the revised log sheet.

- We recommend that if the proposed changes are accepted, the National Association of State Directors of Migrant Education provide the implementation of uniform in-service training.

3. ORAL LANGUAGE

Recommendation

1. It is recommended that the oral language skills list be expanded so that the skills are more appropriate for LEP (Limited English Proficient) students. It is necessary to:

   a. add code numbers at the subtopic and skill level

   b. be more specific in wording of subtopic of areas.

Plan for Implementation

The oral language skills list will be revised using these guidelines:

1. The descriptor for the topic or subtopic should be clearly stated, complete, and easily understood both by the reporting teacher and as printed on the Educational Record.

2. Add subtopics as needed. (i.e., subtopic 365 Questioning)

3. Add skills under each subtopic. Skills should be stated as competencies, not as content or specific activities. If the example can be changed into a usable skill, include it and add other skills. If not, omit it and develop skills appropriate to the subtopic. (See Addendum A for examples.) The skills

Recommendation	Plan for Implementation
	list must be as complete as possible to ensure LEP students' needs and higher level communication skills are being met. 4. Make the subtopic a five (5) digit coed. Input could then take place at any level, subtopic or skill, with the print being at the same level as the input.
2. It is recommended that the oral language skills list be expanded so that the skills are more appropriate for students at higher levels of language proficiency. It is necessary to: a. add code numbers at the subtopic and skill level b. be more specific in wording of subtopic areas.	Follow the plan for implementation outlined for recommendation #1.
3. It recommended that a committee of migrant educators be appointed to complete a revision of the oral language skills list as outlined in recommendations #1 and #2 of the SIS oral language working committee. This group would include representatives from the oral language working committee and staff with training and experience in second language acquisition at both the elementary and secondary levels. The committee chairperson will ensure that all committee members have a complete copy of the recommendations from the oral language working committee at least two months prior to their initial group meeting. Individual preparation will consist of gathering information for the purpose of extending the oral language skills list as recommended by the oral language working committee.	

Recommendation	Plan for Implementation
4. It is recommended that the five most commonly used standardized language proficiency tests be identified for national use in reporting language proficiency of LEP students.	
5. It is recommended that test information on level(s) of language proficiency be added to the existing standardized test list in the test data section of the MSRTS Educational Record.	
6. It is recommended that training be provided for teachers in the use of SIS oral language skills and in interpretation of language proficiency data. It is further recommended that secondary teachers of LEP students be made aware that oral language skills can be reported and transmitted through the student's Educational Record.	Make available and disseminate updated oral language MSRTS training materials for use at state and local levels, to include interpretation of language proficiency data. Provide complete training for new staff and refresher training for returning staff. Each state should designate one or more migrant educators to be inserviced at the national level on a timely basis and to receive updating to ensure appropriate training to all local migrant staff annually. MSRTS should include trainers in mailings of MSRTS information concerning changes and updating of reporting. Encourage monitoring of actual effectiveness of the system by MSRTS regional coordinators on a rotating basis by state.
7. It is recommended that the MSRTS Committee review the use and operation of the system for the purposes of: a. Consistency in reporting b. Reduction of time lag c. Complete dissemination of information d. Increasing SIS utilization e. Appropriate use of SIS as intended f. Use of SIS oral language skills	The MSRTS Committee will review the SIS working committees' data to determine weaknesses noted, particularly in SIS usage and operation as outlined in the oral language working committee's recommendations.

Recommendation	Plan for Implementation
g. Interpretation of language proficiency data.	
8. It is recommended that each state provide training in MSRTS use, its intent, and its input annually to all migrant staff to include:	Make available and disseminate updated MSRTS training materials for use at state and local levels. Provide complete training for new staff and refresher training for returning staff. Each state should designate one or more migrant educators to be inserviced at the national level on a timely basis and to receive updating to ensure appropriate training to all local migrant staff annually including the following areas:
a. Consistency in reporting	1. Records a. Skills b. Use of records
b. Reduction of time lag	
c. Complete dissemination of information	2. Manuals a. Dissemination b. Explanation
d. Increasing SIS utilization	
e. Appropriate use of SIS as intended	3. Processes a. Time lines (turn-around time) b. Mode of records transfer
f. Use of SIS oral language skills	MSRTS should include trainers in mailings of MSRTS information concerning changes and updating of reporting. Encoruage monitoring of actual effectiveness of the system by MSRTS regional coordinators on a rotating basis by state.
g. Interpretation of language proficiency data.	
9. It is recommended that the LEA provide for awareness training on a local level for general staff, to include administrative, instructional, and support personnel, in the interpretation of MSRTS data and system usage.	
10. It is recommended that a committee develop a writing skills list to be included in the Skills Information System. It is also recommended that this committee include equal representation of SIS oral language and reading working committee members.	

4. EARLY CHILDHOOD

Conclusion	Recommendation
1. While not intended to be sequential, the Early Childhood Skills List is classified into developmental areas, complete in content, and skills statements are formatted clearly on the MSRTS record.	1. Early Childhood Skills List is complete for reporting skill statements for children birth through 5 years of age, therefore, the list should be utilized as it currently exists.
2. Utilization of the Early Childhood.SIS has reflected an upward trend from 1982 to 1985.	2. Early Childhood Skills List is an important part of the MSRTS system and its utilization should continue to be emphasized.
3. The National MSRTS reporting process of using the skills list manual and the Educational Record input area for the SIS is time consuming.	3. A National Checklist should be developed or agreed upon to report skills with more uniformity, speed, and accuracy. The checklist would require only minimal identifiable student information (name and MSRTS ID#) to be handwritten and printed as one front and back letter size page.
4. MSRTS records frequently arrive too late for classroom use. When the MSRTS records arrive within a week, they have been reported to be beneficial to the teacher and/or school personnel.	4. A study should be conducted to identify, examine, and improve the entire transmittal process from the sending teacher to the receiving teacher.
5. The users have inadequate knowledge of the MSRTS Student Education Record intent, content, format, and utilization process.	5. A National Training Program should be developed to appropriate user responsibilities. This training program would address all facets including intent, content, format, and utilization of the SIS in relation to the MSRTS and would emphasize the intended use of the MSRTS Student Educational Record.

Appendix A - MSRTS Skills Information Survey & Tally of Item Responses

NATIONAL ASSOCIATION OF STATE DIRECTORS OF MIGRANT EDUCATION

MSRTS SKILLS INFORMATION SURVEY

State ☐☐ Range ☐ Stream ☐

Since you are involved in the instruction of Migrant children, your response to each of the following items is very important. Your responses, along with any comments you care to make, will assist in a national review of the content and utilization of the MSRTS skills information system. Your responses will in no way be identified with you or your district. PLEASE CHECK ONLY ONE RESPONSE.

PART I - USER INFORMATION

1. My work is primarily with: N = 969

4%	a. ☐ Preschool 43		9%	e. ☐ Junior high 88	
23%	b. ☐ Primary 227		6%	f. ☐ High school 55	
9%	c. ☐ Intermediate 92		33%	g. ☐ All grades 317	
11%	d. ☐ All elementary grades 111		4%	h. ☐ Does not apply 36	

2. The total number of Migrant students I work with in a day is: N = 1265

4%	a. ☐ 0	49	15%	d. ☐ 21-30	190
23%	b. ☐ 1-10	291	8%	e. ☐ 31-40	102
31%	c. ☐ 11-20	394	19%	f. ☐ Over 40	239

3. My primary assignment is: (if you have more than one responsibility, indicate the assignment which occupies the majority of your time) N = 1319

62%	a. ☐ Certificated teacher	822	10%	d. ☐ Records clerk or other support personnel	128
17%	b. ☐ Noncertificated instructional personnel	218			
11%	c. ☐ Administrative	151			

4. I have worked with Migrant students: N = 1272

6%	a. ☐ Less than one year	71	20%	c. ☐ 2-4 years	257
11%	b. ☐ 1-2 years	138	63%	d. ☐ Over 4 years	806

5. I work with Migrant students during: N = 1310

57%	a. ☐ Regular school year only	743	33%	c. ☐ Both regular school and summer school	437
10%	b. ☐ Summer school only	130			

6. Are all or part of your wages paid with Migrant funds? N = 1253

88%	a. ☐ Yes	1107	12%	b. ☐ No	146

7. Have you received training in the following areas of the MSRTS skills information system?

	Yes	No		Yes	No	
a. Reading	1947 / 87%	153 / 13%	N = 1220	c. Oral language	514 / 71%	562 / 29%	N = 1081
b. Math	811 / 95%	164 / 18%	N = 1175	d. Early childhood	513 / 57%	413 / 425	N = 939

PART II - SKILLS INFORMATION SYSTEM UTILIZATION

8. How often have you reported MSRTS skills information on Migrant students? N = 1300

5%	a. ☐ Never 59		27%	d. ☐ Often 346	
7%	b. ☐ Rarely 86		57%	e. ☐ Always 737	
6%	c. ☐ Half of the time 72				

9. How often have you received a MSRTS educational record for a newly enrolling Migrant student? N = 1297

10%	a. ☐ Never 135		27%	d. ☐ Often 347	
16%	b. ☐ Rarely 213		37%	e. ☐ Always 484	
9%	c. ☐ Half of the time 118				

10. When you do receive a MSRTS educational record, how often do you have it within a week of the student's arrival in your class? N = 1272

20%	a. ☐ Never 251		28%	d. ☐ Often 362	
25%	b. ☐ Rarely 322		11%	e. ☐ Always 141	
15%	c. ☐ Half of the time 196				

11. When you do receive a MSRTS educational record, how often does it contain skills information? N = 1275

5%	a. ☐ Never 65		38%	d. ☐ Often 485	
17%	b. ☐ Rarely 220		19%	e. ☐ Always 243	
20%	c. ☐ Half of the time 262				

12. When there is skills information in the record, how often is the information from a school other than your own? N = 1259

9%	a. ☐ Never 114		28%	d. ☐ Often 351	
35%	b. ☐ Rarely 439		6%	e. ☐ Always 80	
22%	c. ☐ Half of the time 275				

13. When skills information is received on a newly enrolling Migrant student, how often do you use this information to place the student in instructional activities? N = 1242

22%	a. ☐ Never 278		26%	d. ☐ Often 323	
26%	b. ☐ Rarely 323		13%	e. ☐ Always 156	
13%	c. ☐ Half of the time 162				

Part II (cont.)

14. Do you use the skills information or skills lists in the following ways?

		Yes	No			Yes	No
53%	a. Group for instruction N = 1027	541 ☐	☐ 486	68%	e. Report student achievement N = 1061	721 ☐	☐ 340
60	b. Prepare special lessons N = 1032	615 ☐	☐ 417	35%	f. Work with parents N = 946	334 ☐	☐ 612
65	c. Correlate with curricula N = 1038	670 ☐	☐ 368		g. Other (please specify)		
70	d. Confirm teacher judgments N = 1041	732 ☐	☐ 309				

PART III - SPECIFIC SKILLS LIST

Reading	Yes	No	Does not apply
15. For my use, the content of the reading skills list is complete. N = 1229	753 61%	263 21%	208 17%
16. The reading skills statements on the MSRTS educational record are clear. N = 1228	71% 898	14% 175	15% 155

Math	Yes	No	Does not apply
17. For my use, the content of the math skills list is complete. N = 1210	734 61%	238 21%	238 21%
18. The math skills statements on the MSRTS educational record are clear. N = 1213	43% 842	17% 171	17% 200

Oral Language	Yes	No	Does not apply
19. For my use, the content of the oral language skills list is complete. N = 1182	605 51%	220 19%	357 30%
20. The oral language skills statements on the MSRTS educational record are clear. N = 1169	53% 676	15% 172	27% 321

Early Childhood Development	Yes	No	Does not apply
21. For my use, the content of the early childhood education skills list is complete. N = 1123	363 31%	82 7%	678 61%
22. The early childhood skills statements on the MSRTS educational record are clear. N = 1114	35% 392	7% 74	58% 648

PART IV - COMMENTS

Do you have any comments on the content of the skills lists or the content and format of the information as it appears on the MSRTS educational record? Please comment under the appropriate skills list title(s).

Reading

Math

APPENDIX B - Proposed Revisions - Reading Skills List

NATIONAL MIGRANT EDUCATION PROGRAM -MSRTS SKILLS CHECKLIST

- READING SKILLS

Student Name: (Last, First, MI)	Student I.D:	Grade:	Date: (Mo., Day, Year)
Teacher Name:	School Name:		
Publisher/Series:	Reads in another Language: Spanish____ Other (specify)_____		

Circle instructional level: R PP P 1 2^1 2^2 3^1 3^2 4^1 4^2 5^1 5^2 6^1 6^2 7^1 7^2 8^1 8^2 9 10 11 12

Check the three skills under study at time of withdrawal.

MSRTS EDUCATIONAL RECORD

READING SKILLS UNDER STUDY

(Output Section:)

Publisher/Series	Instructional Level	Reads in Other Language	Date Reported
_____	_____	* _____	_____

*(Spanish or other language prints out here. Space is blank if no language is designated)

(Skill Codes)	(Skill Descriptions)
_____	_____
_____	_____

(Input Section:)

Publisher/series: _____

Instructional level: _____

Skills Codes: _____

_____

_____

_____

READING SKILLS CHECKLIST

DECODING

READINESS

010 SENSORIMOTOR: Motor and visual ability to manipulate or control environment.

Demonstrates proficiency in the following:

01001 Fine motor (e.g. Coloring, cutting, tracing).

01002 Directionality - Left/Right;Up/Down.

020 VISUAL DISCRIMINATION: Skill in distinguishing forms.

02001 Identifies shapes.

02002 Identifies colors.

02003 Matches letter-name/symbol in a word.

040 VISUAL MEMORY: Amount remembered after seeing.

04001 Places forms on a board, 2-4 piece puzzle.

04002 Identifies (1) missing parts (2) pictures, (3) letters.

04003 Reproduces from memory (1) shapes, (2) pictures (3) letters.

04004 Identifies missing objects from more than 5.

060 AUDITORY DISCRIMINATION: Skill in hearing and identifying sounds.

06001 Listens to story and responds.

06002 Hears likenesses/differences in letter sounds.

06003 Reproduces sound patterns.

070 AUDITORY MEMORY: Amount of language remembered after hearing.

07001 Follows 1 and 2 step directions.

07002 Repeats word order in a simple sentence.

07003 Reproduces rhyming words orally.

07004 Remembers sound assigned to letter.

100 ALPHABET: Recognition of letters.

10001 Recites alphabet.

10002 Matches upper and lower case letters.

10003 Traces and copies letters and words.

10004 Identifies individual letters at sight.

110 PERSONAL IDENTIFICATION SKILLS: Vocalization of personal information

11001 States personal information e.g. name, age, address, etc.

11002 Writes first name.

CONSONANTS:

140 INITIAL: Beginning symbol-sound of a word (e.g. b, s, p, n)

14001 Identifies the consonants in the initial position of a word.

14002 Substitutes one consonant for another to read a new rhyming w

160 FINAL: Ending symbol-sound of word (e.g. f, m, t, n).

16001 Identifies the consonants in the final position of a word.

16002 Substitutes one consonant for another to form a new word.

180 DIGRAPHS: Identifies two (2) consonants in a word, creating a single sound (e.g. ch, wh, sh, th).

200 BLENDS: Identifies two or three consonants in a word retaining their sounds (e.g. bl, sk, pr, spr).

VOWELS

240 SHORT: Identifies short a, e, i, o and u in words.

260 LONG: Identifies long a, e, i, o and u in words.

270 Y AS A VOWEL

27001 Uses y in words such as gym.

27002 Uses y in words such as candy or sky.

280 R OR L CONTROLLED: Uses R or L controlled vowels in words (e.g. er (
, al (all), ar (car)).

300 DIPHTHONGS, DIGRAPHS, COMBINATIONS: Uses diphthongs, digraphs, and combinations in words (e.g. ay (play), ei (neighbor), oo (good), ew (few).

STRUCTURAL ANALYSIS:

320 HEARING SYLLABLES: Determines the number of syllables in a word.

340 USING SYLLABLES: Application of generalizations for accenting and syllabication.

34001 Applies rules for dividing words into syllables.

34002 Applies rules for accenting syllables.

360 ROOT WORDS: Identifies a word or part of a word that is used for mak other words.

380 COMPOUND WORDS: Identifies two (2) or more words combined into one.

400 CONTRACTION: Identifies the shortened form of two (2) given words or identifies the two (2) words of the shortened form.

420 PREFIX: Identifies the initial syllable which may change the meaning the base word (e.g. con-, dis-, pre-).

440 SUFFIX: Identifies the final syllable(s) which may change the part o speech of the base word (e.g. -er,-ly,-able,-ment)

450 ENDINGS: Identifies symbols added to root words which change meaning usage (e.g. balls, biggest, jumped).

COMPREHENSION

LITERAL

460 MAIN IDEA: Identifies the most important thought stated in a selectic

480 RELATED DETAIL: Small parts or items that relate to or support the ma idea.

48001 Locates details in a selection.

48002 Recalls information related to the main idea.

48003 Identifies relevant /irrelevant facts.

500 CLASSIFICATION: Categorizes words or ideas under topic(s).

520 SEQUENCE: Related ideas or sentences which follow one another in specific order.

52001 Rearranges related pictures

52002 Rearranges sentences to make a paragraph/story.

52003 Orders events/ideas in a selection.

540 CONCLUSIONS: Logical ending of a complete thought.

54001 Completes exercises in Cloze procedure. (Fills in the obvious conclusion, e.g. The ___ lost his dog.)

54002 Identifies the words that summarize or conclude.

54003 Lists statements related to conclusion of topic.

560 FOLLOWING DIRECTIONS: Performance of a task as heard or read.

56001 Completes a series of tasks given orally.

56002 Reads one direction and performs the task.

56003 Reads multiple directions and performs the tasks.

56004 Follows instructions related to "how to."

INFERENTIAL:

580 MAIN IDEA: Most important thought not specifically stated.

58001 Uses key words as clues.

58002 Chooses an appropriate title.

58003 Identifies the most important thought in a selection.

600 RELATED DETAIL: Interprets relationship of words or ideas to the main topic.

620 CAUSE/EFFECT: Interprets the implied cause/effect of an action.

640 GENERALIZATIONS: Formulates a broad statement without including detai

650 LITERATURE: Identifies story elements (e.g. characters, theme, settir plot).

660 FIGURATIVE LANGUAGE: Words that convey a meaning other than literally stated.

66001 Tells in own words the meaning of expressions such as a "blanke of fog", "screaming headlines."

66002 Identifies figurative phrases in selected sentences and/or poem

66003 Interprets similes and metaphors. ("The kitten is as white as snow." "You are a doll.")

680 SUMMARIZING: Condensing information.

68001 Relates details of a selection in a minimum number of words.

68002 Condenses materials from various sources for a report.

700 PUNCTUATION: Demonstrates understanding of symbol clues in written fo that clarify meaning and separate structural units through pause, stress, inflection or intonation. (e.g. question mark, period, comma, colon)

720 CRITICAL READING: Evaluation of truth, logic, reliability and accura in what is written.

72001 Classifies as fact/fiction, whether or not event could happen.

72002 Differentiates between fact and opinion.

72003 Evaluates for propaganda: false analogies, stereotyping, false generalizations, appeal to authority, loaded words.

72004 Compares/contrasts to clarify.

72005 Identifies author's purpose.

740 PREDICTING OUTCOMES: Using given information to determine outcomes.

74001 Selects appropriate conclusion from several choices.

74002 Suggests logical conclusion to reading selection.

VOCABULARY

760 SIGHT WORDS: Fluently reads words that should be instantly recogniz and understood.

780 MULTIPLE MEANINGS: Words spelled the same but having different meanir according to usage.

78001 Uses words that serve as a different part of speech in a senter but sound and look the same (orange). ("This orange is good." "Orange is a pretty color.")

78002 Uses words that sound and look the same, but must be used in a sentence to identify meaning. (tape used in a recorder vs. tape used to re items.)

78003 Uses words that change with accent. ("I object to that!" "Plac the object on the table.")

800 TIME/IDENTITY SIGNAL WORDS: Certain words or phrases which answer questions or help organize information.

80001 Determines meaning of pronoun referents (they, it, etc.).

80002 Identifies question words (e.g. who, what, where and how)

80003 Uses signal words as an aid to comprehension (e.i. although, bu however).

820 WORD MEANINGS: Recognition of associated concepts.

82001 Identifies synonyms (speak-talk, correct-right).

82002 Identifies homonyms (see-sea, cent-sent-scent).

82003 Identifies antonyms (in-out, up-down).

82004 Identifies abstract word meanings.

82005 Uses technical vocabulary of content areas.

82006 Comprehends word-analogies (e.g. Eye is to see as ear is to ___

840 CONTEXT: Uses surrounding words to [redacted] understand an unfamiliar word.

STUDY SKILLS

Reading in the content area.

860 READING RATE: Ability to adjust rate of reading.

86001 Uses flexible reading rate according to reading purpose.

86002 Skims/scans to find specific information or general content.

880 FOLLOWING DIRECTIONS: Follows printed directions involving technical vocabulary of a subject area.

900 CHART/GRAPH/MAP READING: Analysis and translation of symbols into meaning.
Constructs or utilizes the following:

90001 Charts

90002 Graphs (Bar, Circle, Line)

90003 Road Maps

90004 Topical/Geographical Maps

90005 Diagrams/Timelines

920 LOCATIONAL SKILLS: Appropriate use of resource materials.

92001 Uses alphabetical order.

92002 Uses dictionary/encyclopedia.

92003 Uses telephone directory.

92004 Uses newspapers.

92005 Uses library references

92006 Determines best source of information

940 ORGANIZING: Arrangement of details in logical order.

94001 Takes notes.

94002 Uses outline format.

94003 Records bibliography.

94004 Uses study method such as "Survey-Question-Read-Recite-Review. SQ3R)

94005 Summarizes

94006 Uses footnotes

94007 Uses cross-references

960 SURVIVAL SKILLS: Those skills necessary for today's living.

Understands the following:

96001 Signs/Labels

96002 Forms

96003 Schedules

96004 Consumer Information

READINESS

--- COLOR

---1. Match colors
---2. Identify basic colors
---3. Identify other colors
---4. Match color and color word

028 SPATIAL RELATIONS

---1. Recognize relation of one object to another.
Ex. left/right, on/under...

031 TIME RELATIONS

---1. Recognize time relations (ex. before, during, after...)

--- SIZE RELATIONS

---1. Identify size relations (Ex. small/large...)
---2. Order by size

--- MEASUREMENT RELATIONS

---1. Identify weight relations (Ex. light/heavy...)
---2. Identify length relations (Ex. short/long...)
---3. Identify volume relations (Ex. empty/full...)
---4. Order objects by measurement relations (Ex. light/lighter/lightest.

NUMBER MEANING

--- HISTORY OF NUMERATION SYSTEMS

---1. Roman numerals
---2. Other systems

070 NUMERAL AND ASSOCIATED WORD NAMES

---1. Read numerals 0-9
---2. Write numerals 0-9
---3. Read numerals 0-20
---4. Write numerals 0-20
---5. Read numerals > 20
---6. Write numerals > 20

073 SIGNS AND ASSOCIATED WORD NAMES

---1. +, -, and word names
---2. x, ÷, and word names
---3. >, <, = and word names
---4. % and word name

076 ORDINATION

---1. Identify ordinal position (Ex. first...)
---2. Complete sequence of number (Ex. 1, 2, __, 4; 5, 10, ___, 20;...)
---3. Identify numbers before and after a given number
---4. Solve problems involving comparison of numbers

079 COUNTING

---1. Count by 1's: 1-10
---2. Count by 1's: 1-20
---3. Count by 1's: 1-100
---4. Count by 2's
---5. Count by 3's
---6. Count by 4's
---7. Count by 5's
---8. Count by 10's
---9. Count by 100's
--10. Counting by other groupings (Ex. by 6's...)
--11. Odd or even counting

NUMBER MEANING

--- EXPANDED NOTATION

--- SCIENTIFIC NOTATION

--- EXPONENTIAL NOTATION

--- FACTORIALS

--- ESTIMATING AND ROUNDING

---1. Estimate sums
---2. Estimate differences
---3. Estimate products
---4. Estimate quotients
---5. Estimate fractions
---6. Estimate decimals
---7. Estimate measurements
---8. Estimate mass weight
---9. Estimate volume
--10. Rounding of numbers to nearest 10, 100,...
--11. Check reasonableness of answer

WHOLE NUMBERS

082 PLACE VALUE

---1. Identify value and place value of each digit in a 1-digit number
---2. Identify value and place value of each digit in a 2-digit number
---3. Identify value and place value of each digit in a 3-digit number
---4. Identify value and place value of each digit in a 4-digit number
---5. Identify value and place value of each digit in a 5-digit number...

--- ADDITION

---1. Identify terms (Ex. addend, sum)
---2. Sums thru 5
---3. Sums thru 10
---4. Sums thru 18
---5. Addition, no regrouping
---6. Addition, regrouping
---7. Addition word problems
---8. Check problems
---9. Mental computations

--- SUBTRACTION

---1. Identify terms (Ex. minus, difference)
---2. Subtraction combinations thru 5
---3. Subtraction combinations thru 9
---4. Subtraction combinations thru 18
---5. Subtraction, no regrouping
---6. Subtraction, regrouping
---7. Subtraction word problems
---8. Check problems
---9. Mental computations

--- MULTIPLICATION

---1. Identify terms
---2. Multiply by 0's thru 5's
---3. Multiply by 6's thru 9's
---4. Multiply by > 9's
---5. Multiply, no regrouping
---6. Multiply, regrouping
---7. Multiplication word problems
---8. Check problems
---9. Mental computations

WHOLE NUMBERS

--- DIVISION

---1. Identify terms
---2. Single-digit divisor, no remainder
---3. Single-digit divisor, remainder
---4. Multiple-digit divisor, no remainder
---5. Multiple-digit divisor, remainder
---6. Division word problems
---7. Check problems
---8. Mental computations

FRACTIONS

--- FRACTIONS

---1. Identify terms
---2. Relate fractions to parts of objects
---3. Group sets into fractional parts
---4. Compare fractions
---5. Solve problems involving fractions
---6. Solve word problems involving fractions
---7. Ratio and proportions

261 PRIME FACTORING

2610__ A composite number
2610__ A prime factorization
2610__ Multiples

264 REDUCING FRACTIONS

267 LEAST COMMON MULTIPLE

270 GREATEST COMMON FACTOR

--- ADDITION OF FRACTIONS

---1. Add like denominators
---2. Add unlike denominators

FRACTIONS

--- SUBTRACTION OF FRACTIONS

1. Subtract like denominators
2. Subtract unlike denominators

--- MULTIPLCIATION OF FRACTIONS

1. Reciprocals
2. Proper x proper
3. Whole number x proper
4. Mixed number x fraction
5. Multiplication of fraction word problems

--- DIVISION OF FRACTIONS

1. Proper ÷ proper
2. Proper and mixed
3. Proper and whole numbaers
4. Mixed and mixed
5. Division of fractions word problems

DECIMALS
BASIC CHARACTERISTICS

351 PLACE VALUE TO THE 100,000th

3510___ A single digit decimal numeral (.1-.9)
3510___ A two digit decimal numeral (.01-.99)
3510___ A place value name (tenths, hundredths) and a two digit decimal numeral (.01-.99)
3510___ A three digit decimal numeral (.001-.999)
3510___ A place value name (tenths, hundredths, thousandths) and a three digit decimal numeral (.001-.999)
3510___ A four digit decimal numeral (.0001-.9999)
3510___ A place value name (tenths, hundredths, thousandths, ten-thousandths and a four digit decimal numeral (.0001-.9999)
3510___ A decimal numeral with five or more places to the right of the decimal
3510___ A place value name (tenths, hundredths,...) and a decimal numeral with five or more places to the right of the decimal
3510___ A decimal number of no more than six places to the right of the decimal

354 ROUNDING

35401 A decimal fraction

DECIMALS

CONVERSIONS

357 EQUIVALENT DECIMALS

35701. Decimal fractions

360 FRACTIONS TO DECIMALS

36001. A mixed numeral (fraction form) where the denominator is 10
360--. A fraction whose denominator is or is not a factor of 10,100, 1,000, ...

363 DECIMALS TO FRACTIONS

36301 A one-place decimal fraction
36302 A two-place decimal fraction
36303 A mixed decimal fraction

366 REPEATING DECIMALS TO FRACTIONS

--- ADDITION OF DECIMALS

---1. Even, no regrouping
---2. Uneven, no regrouping
---3. Even, regrouping
---4. Uneven, regrouping
---5. Word problems involving addition of decimals

---SUBTRACTION OF DECIMALS

---1. Even, no regrouping
---2. Uneven, no regrouping
---3. Even, regrouping
---4. Uneven, regrouping
---5. Word problems involving subtraction of decimals

DECIMALS

--- MULTIPLICATION OF DECIMALS

---1. Even
---2. Uneven
---3. Word problems involving multiplication of decimals

--- DIVISION OF DECIMALS

---1. Remainder = 0
---2. Remainder > 0
---3. Word problems involving division of decimals

PERCENT

CONVERSIONS

423 DECIMAL TO %

___ 42301 A two-place decimal fraction
___ 42302 A three-place decimal fraction
___ 42303 A decimal fraction in units and tenths

426 % TO DECIMAL

___ 42601 A (whole) percent < 10 %, > 1%
___ 42602 A (whole) percent < 100%, > 10%
___ 42603 A (whole) percent < 1,000%, > 100%
___ 42604 A percent in decimal fraction form
___ 42605 A percent in mixed fraction form

429 FRACTION TO %

___ 42901 A unit fraction with a denominator of 2, 4, 5, or 10
___ 42902 A nonunit fraction with denominator a factor of 100
___ 42903 A fraction with denominator a factor of 1,000, 10,000, etc. but not of 100

432 % TO FRACTION

___ 43201 A percent < 10%, > 1%
___ 43202 A percent < 100%, > 10%
___ 43203 A percent < 1,000%, > 100%
___ 43204 A percent in decimal fraction form
___ 43205 A percent in mixed fraction form

PERCENT

CALCULATIONS

435 A % OF B = _____

___ 43501 The percent (A) is whole (>10%, <100%) and the other factor (B) is whole
___ 43502 The percent (A) is whole (>1%, <10%) and the other factor (B) is whole
___ 43503 The percent (A) is whole (>100%, <1,000%) and the other factor (B) is whole
___ 43504 The percent (A) is a mixed fraction, the factor (B) is a whole number
___ 43505 The percent (A) is a mixed decimal fraction, the other factor (B) is whole
___ 43506 Word problems

438 A % OF _____ =C

___ 43801 The percent (A) is whole, the product (C) is whole, and the answer (B) is whole
___ 43802 The percent (A) is a mixed decimal fraction, the produce (C) is whole, and the answer (B) is whole
___ 43803 Word problems

441 A % OF B = C

___ 44101 The other factor (B) is whole, the product (C) is whole, and the answer (A) is whole (>100%)
___ 44102 The other factor (B) is a decimal fraction, the product (C) is a decimal fraction, answer (A) is whole (<100%)
___ 44103 Word problems

MEASUREMENT

--- LINEAR MEASUREMENT

---1. Use customary/metric units to measure lengths
---2. Solve length measurement problems
---3. Use abbreviation, symbols and vocabulary of length measurement

450 CONVERSIONS, CUSTOMARY UNITS

___ 4500__ A customary unit of linear measurement and subunit of the unit
___ 4500__ A customary subunit of linear measurement

456 CONVERSIONS, METRIC UNITS

___ 45601 A metric unit of linear measurement (km or m) and a subunit of the unit (m, cm, mm)

462 MEASURING PERIMETER

___ 46201 A customary unit of linear measurement and a simple geometric shape
___ 46202 A unit of metric linear measurement and a simple geometric shape

--- CIRCULAR MEASUREMENT

---1. Identify radius/diameter
---2. Measure circumference of a circle
---3. Solve problems involving measurement of a circle

465 SCALING, MAPS AND DRAWINGS

--- WORD PROBLEMS USING CUSTOMARY/METRIC UNITS

MEASUREMENT

AREA

477 MEASURING AREA BY TILING GRIDS, ETC.

4770_ A given number of units of an arbitrary unit of area measurement
47702. A simple geometric figure and an arbitrary unit of area

480 COMPUTING AREA OF RECTANGLE

4800_ Sides given
4800_. Area and one side given

483 COMPUTING AREA OF PARALLELOGRAM

4830_. Side given
4830_. Area and one side given

486 COMPUTING AREA OF RIGHT TRIANGLE

4860_. Height and base given
4860_. Area and one dimension given

492 COMPUTING AREA OF CIRCLE

4920_. Given radius or diameter to compute area
4920_. Find radius or diameter when area given

495 RELATIONS BETWEEN PERIMETER AND AREA

--- CONVERTING BETWEEN CUSTOMARY/METRIC MEASURE OF AREA

504 COMPUTING SURFACE AREA OF A RECTANGULAR SOLID

507 IDENTIFY LAND MEASUREMENTS

50701. Acres
50702. Hectares...

510 WORD PROBLEMS IN COMPUTING AREAS

513 MEASUREMENT OF VOLUME

___ 51301 An arbitrary unit of volume
___ 51302 A given number of units of an arbitrary unit of volume
___ 51303 A rectangular solid
___ 51304 An irregularly shaped solid object
5130_ Solve problems involving volume measurement

--- MEASUREMENT OF TEMPERATURE

---1. Read a Celsius/Farenheit gauge
---2. Solve problems involving temperature

531 WEIGHT MEASUREMENT

531__. Use customary/metric weights to measure mass
531__. Solve weight measurement problems
531__. Use abbreviation, symbols and vocabulary of weight measurement

534 MEASURING CAPACITY

534__. Use customary/metric units of measure of capacity
534__. Solve capacity measurement problems
534__. Use abbreviation, symbols and vocabulary of capacity measurement

MONEY

--- MONEY

---1. Identify value of coins
---2. Order coins by value
---3. Identify value of bills
---4. Order bills by value
---5. Determine value of a collection of like coins
---6. Determine value of a collection of unlike coins
---7. Determine value of a collection of like bills
---8. Determine value of a collection of unlike bills
---9. Determine value of a collection of coins and bills
--10. Solve problems involving money
--11. Display understanding of the relation between place value and money notation
--12. Show ability to make change
--13. Convert coins to dollars/dollars to coins

GEOMETRY

--- LINES

---1. Identify straight lines, curved lines ...

--- SHAPES

---1. Match shapes
---2. Identify basic two-dimensional shapes
---3. Identify basic three-dimensional shapes

558 TYPES OF QUADRILATERALS

___ 5580_ A property distinguishing a quadrilateral from other quadrilaterals
___ 5580_ A quadrilateral (rectangle, square, rhombus, parallelogram, trapezoid, isoceles trapezoid)
___ 5580_ The name of a particular quadrilateral from the collection above

561 PARALLEL, PERPENDICULR, INTERSECTING LINES

___5610_ Parallel, perpendicular, or intersecting line segments
___5610_ The name "parallel," "perpendicular," or "intersecting" and a collection of lines or line segments

564 EXTERIOR/INTERIOR REGIONS OF CLOSED CURVES

___ 56401 A simple closed curve

567 SYMMETRY OF OBJECTS OR FIGURES

___ 56701 A collection of objects or figures some of which are symmetrical
___ 56702 A collection of different objects or figures possessing symmetry

570 MIDPOINT OF A LINE

___ 57001 A line segment

573 POINTS LYING IN A COMMON PLACE

___ 57301 A collection of objects or sets of points

576 INTERSECTION OF PLANES

____ 57601 A display of several intersecting planes

579 INTERSECTION OF LINES AND PLANES

___ 57901 A display of planes and lines

582 PARALLEL AND NON-PARALLEL PLANES

___ 58201 Parallel and non-parallel planes

585 COORDINATES AND POINTS

___ 5850-A coordinate grid and a point
___ 5850_A coordinate grid and a pair of coordinates
___ 5850_Coordinates expressed as an ordered pair
___ 5850_A coordinate grid and a point
___ 5850_A map with coordinates

588 OBTUSE, ACUTE, AND 90% ANGLES

___ 5880_Identifies an angle
___ 5880_The name "acute," "obtuse," or "right" (90°) angle
___ 58802 Measures an angle

GEOMETRY

591 CONGRUENCY OF ANGLES FORMED BY INTERSECTING LINES

___ 59101 Two intersecting line segments
___ 59102 A line intersecting two parallel lines

--- TRANSLATIONS, REFLECTIONS, ROTATING

--- CONGRUENT AND SIMILAR TRIANGLES

594 DIAMETER, RADIUS, AND CHORD OF A CIRCLE

___ 59401 A circle with center "C"

597 ALTITUDE AND BASE OF A TRIANGLE

600 PYTHAGOREAN RELATIONSHIP

___ 60001 A geometric display of the Pythagorean relationship
--Identifies relationship
___ 60002 A geometric display of the Pythagorean relationship
--Identifies formula

PROBABILITY AND STATISTICS

--- GRAPHS

---1. Bar
---2. Line
---3. Circle
---4. Picto
---5. Data Tables

603 TALLYING

--- SAMPLE STATISTICS

---1. Mean/Average
---2. Median
---3. Mode
---4. Range

PROBABILITY AND STATISTICS

--- PROBABILITY

---1. Projection for more likely/less likely
---2. Express probability of an event

EQUATIONS AND INTEGERS

--- PROPERTIES OF WHOLE NUMBERS

--- UNDERSTANDS EXPONENTS

---1. Equations, 1 step
---2. Equations, 2 step

--- POSITIVE AND NEGATIVE NUMBERS

--- COMPARING INTEGERS

---1. Adding integers
---2. Subtracting integers
---3. Multiplying integers
---4. Dividing integers

--- ABSOLUTE VALUE

--- TRANSLATE WORD PHRASES AND SENTENCES INTO EXPRESSIONS AND MATHEMATICAL EQUATIONS

SETS

--- SET RECOGNITION

----1. Recognize sets
----2. Identify members of sets

--- SET COMPARISON

----1. Equivalent sets
----2. Nonequivalent sets
----3. Sets with more/fewer members

642 ONE-TO-ONE MATCHING

----1. Match members of equivalent sets

--- SET-TO-NUMERAL COMPARISON

----1. Match sets of zero to five with numerals 0-5
----2. Match sets of six to ten with numerals 6-10

--- JOINING AND SEPARATING SETS

----1. Join sets to form sets of one to ten
----2. Separate sets into subsets

--- PATTERNS

----1. Complete pattern sequences

VENN DIAGRAMS

684 VENN DIAGRAM CONCEPTS AND TERMS

--- CALCULATORS, COMPUTERS, ...

----1. Keyboard Familiarity
----2. Terminology
----3. Practical Applications
----4. Programming

Appendix D - Proposed Changes - Oral Language Skills List

Examples of Changes in Oral Language Skills

LISTENING

10 Oral Directions
020 Simple: One step
  02001 Follows one word commands
  02002 Carries out directions given in a simple sentence
040 Complex: Two or more steps
  04001 Carries out directions given in a compound/complex sentence
  04002 Carries out directions in sequence

SPEAKING

10 Functional Communication
280 Describing: Depict verbally an object, action, or relationship
  28001 Describes using single words
  28002 Describes using phrases
  28003 Describes using simple sentences
  28004 Describes using compound or complex sentences
  28005 Describes using multiple interrelated sentences
  28006 Describes using a paragraph

300 Discussing: Exchange information
  30001 Responds using single words
  30002 Interacts using phrase(s)
  30003 Talks and interacts using simple sentences
  30004 Talks and interacts using compound/complex sentences
  30005 Elicits information
  30006 Exchanges information or opinions
  30007 Convinces others to agree with a position or statement

320 Reporting
  32001 Gives a narrative account using simple sentences
  32002 Gives a narrative account using compound/complex sentences
  32003 Gives a narrative account using multiple interrelated sentences
  32004 Gives a narrative account using logical sequence
  32005 Gives a narrative account in summary form

340 Retelling
  34001 Repeats sounds
  34002 Repeats words
  34003 Repeats phrases
  34004 Repeats complete sentences
  34005 Repeats short verses
  34006 Retells in own words
  34007 Retells in summary form

360 Giving directions: Tell how to do something
  36001 Gives single word commands/directions
  36002 Gives commands/directions using phrases
  36003 Gives commands/directions using simple sentences
  36004 Gives commands/directions using compound/complexes sentences
  36005 Gives commands/directions using multiple interrelated sentences

10 Basic

440 Nouns: Words used to name objects, persons, places, and abstract concepts

44001 Recognizes and names nouns

A. Recognizes and names common objects (ball, horse)

B. Recognizes and names persons (Miss Perez, policeman)

C. Recognizes and names places (Ohio River, desert)

D. Recognizes and names abstract nouns (love, happiness)

44002 Classifies nouns

A. Classifies common objects

B. Classifies persons

C. Classifies places

44003 Forms plurals of nouns

A. Forms plurals of regular nouns (dog, dogs)

B. Forms plurals of irregular nouns (mouse, mice)

44004 Uses nouns in sentences